

LANGLEY AIRCRAFT CORPORATION

MODELS: Langley 2-4-90, 4 PCLM

T.C. NUMBER: 755 (Approved 12/29/43)

| | |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engines | 2 Franklins 4AC-199E3 |
| Fuel | 80 minimum octane aviation gasoline |
| Engine limits | For all operations, 2500 rpm (90 hp) |
| Airspeed limits | Level flight or climb - 150 mph True Ind. Glide or dive - 180 mph True Ind. |
| Propeller limits | Static rpm at maximum permissible throttle setting - not more or less than 2100. Diameter - not more than 72 in., not less than 70 in. |
| C.G. range | (+14.7) to (+19.1) |
| Datum | Wing leading edge at center section |
| Leveling means | Right hand longeron at entrance to cockpit |
| Maximum weight | 2650 lbs. |
| No. seats | 4 (two at (+10), two at (+42)) |
| Baggage | None |
| Fuel capacity | 35 gallons (two tanks: 17-1/2 gallons each in center section) (+23) |
| Oil capacity | 2-1/2 gallons (1-1/4 gallons each engine) (-25) |
| Control surface movements | Elevator Up 25 degrees; down 25 degrees Elevator trim tab Up 22 degrees; down 18 degrees Ailerons Up 20 degrees; down 23 degrees Rudder Right 25 degrees; left 25 degrees Rudder trim tab None - Adjustable bungee used. |
| Serial Nos. eligible | 3 and up per NOTE A |
| Required equipment | Items 1, 101, 102, 103, 104, 201, 202, 203, 301, 302 |

Specifications Pertinent to All Models:

| | |
|---------------------|--------------------------------------------------------------------------------------------------|
| Certification basis | Type Certificate No. 755 (CAR 4a) |
| Production basis | None (See NOTE A) |
| Export eligibility | Eligible for export to all countries except Great Britain, Australia, Canada and New Zealand. |

EQUIPMENT:

| | | |
|--------------------------------------------------------|---------|-------|
| Propellers and Propeller Accessories | | |
| 1. Propellers - wood (fixed pitch) and hubs | 22 lbs. | (-38) |
| Engines and Engine Accessories - Fuel and Oil System | | |
| 101. Two carburetor air heaters and controls | 4 lbs. | (-21) |
| 102. Four fuel pumps | | |
| (a) Two engine-driven (AC GP-10584) | 4 lbs. | (-19) |
| (b) Two electric impulse (Auto pulse 300) | 4 lbs. | (+5) |
| 103. Two starters (direct electric) (Delco Remy - 142) | 30 lbs. | (-13) |
| 104. Two carburetor air scoops (Skinner Model S-300-A) | 6 lbs. | (-28) |

Landing Gear

| | | | |
|------|-----------------------------------------------------------|---------|--------|
| 201. | 8.50-8 wheels (Goodyear L8HBM) with 7.00-8 4-ply tires | 44 lbs. | (+7) |
| 202. | Wheel streamlines (Drawing 1-20200) | 8 lbs. | (+8) |
| 203. | 8 in. smooth contour tail wheel (Firestone) with tire | 3 lbs. | (+190) |

Electrical Equipment

| | | | |
|------|---------------------------------------------------------------|---------|-------|
| 301. | One generator 4-8 amp. (Electric Auto Lite Model GDY-4106) | 12 lbs. | (-13) |
| 302. | Battery, 12 volt (Reading R40 non-spillable) | 40 lbs. | (-46) |

Interior Equipment

| | | | |
|------|---------------|--------|-------|
| 401. | Seat cushions | | |
| | (a) Two front | 7 lbs. | (+14) |
| | (b) One rear | 7 lbs. | (+46) |

NOTE A. Prior to original certification, each aircraft must satisfactorily pass:

- (a) An inspection for workmanship, materials and conformity before any covering, metal priming or final finish is applied. All woodwork may be varnished.
- (b) A final inspection of the completed aircraft.
- (c) A check of the flight characteristics.

NOTE 1. The following placards must be prominently posted in full view of the pilot:

- (1) "This airplane shall be operated in accordance with Part I of the C.A.A. approved operating manual for Andover Kent Model Langley 2-4-90. The manual shall be carried in the pilot's compartment at all times."
- (2) "Intentional Acrobatics Prohibited."
- (3) "With no passenger in the front seat only one passenger may be carried in the rear seat."